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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named

Inventor : Mu Li

Appln. No. : 10/662,502

Filed : September 15, 2003

For : UNSUPERVISED TRAINING FOR  
OVERLAPPING AMBIGUITY  
RESOLUTION IN WORD  
SEGMENTATION

Docket No.: M61.12-0527

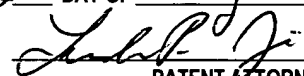
Group Art Unit: 2641

Examiner: ---

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

I HEREBY CERTIFY THAT THIS PAPER IS BEING  
SENT BY U.S. MAIL, FIRST CLASS, TO THE  
COMMISSIONER FOR PATENTS, P.O. BOX 1450,  
ALEXANDRIA, VA 22313-1450, THIS

25<sup>th</sup> DAY OF May, 20 04.  
  
PATENT ATTORNEY

Sir:

The patents or publications listed on the enclosed PTO Form-1449 are submitted pursuant to 37 C.F.R. § 1.97. Copies of the patents or publications cited are enclosed, except as waived by the Official Gazette notice of August 5, 2003 regarding copies of US Patents and Publications.

**LIST REFERENCES NOT SUBMITTED**

**TIME OF FILING**

The information disclosure statement is being filed:

1. X with the application or within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office Action on the merits, whichever event occurs last. In accordance with 37 C.F.R. § 1.97(b), no statement or fee is required.
2. \_\_\_\_\_ after the time period specified in paragraph 1 above, but before the mailing date of a final action under 37 C.F.R. § 1.113 or notice of allowance under 37 C.F.R. § 1.311. Therefore, in accordance with 37 C.F.R. §

1.97(c), submitted herewith is:

(check either A or B below)

- A. ☐ a statement as specified in 37 C.F.R. § 1.97(e).  
B. ☐ the fee set forth in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under 37 C.F.R. § 1.97(c).

3. ☐ after the mailing date of either a final action under 37 C.F.R. § 1.113 or a notice of allowance under 37 C.F.R. § 1.311, whichever occurs first, but before payment of the issue fee. Therefore, Applicant petitions for consideration and submits herewith:

- A. a statement as specified in 37 C.F.R. § 1.97(e);

#### **STATEMENT**

The person(s) signing below certify

☐ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement. 37 C.F.R. § 1.97(e)(1).

OR

☐ that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this statement. 37 C.F.R. § 1.97(e)(2).

#### **METHOD OF PAYMENT**

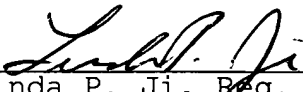
☒ No fee is required.

☐ Attached is a check in the amount of \$\_\_\_\_\_.


The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123. A duplicate copy of this communication is enclosed.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

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LPJ:lms

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|--|--|---------------------------------------|--------------------------|
| FORM PTO-1449  |  | Atty. Docket No.:<br>M61.12-0527      | Appl. No.:<br>10/662,502 |
|  LIST OF PATENTS AND PUBLICATIONS FOR<br>APPLICANT'S INFORMATION<br>DISCLOSURE STATEMENT |  | First Named Inventor:<br>Mu Li et al. |                          |
|  |  | Filing Date<br>September 15, 2003     | Group Art:<br>2641       |

U.S. PATENT DOCUMENTS

| Examiner Initial | Document No. | Date | Name | Class | Sub Class | Filing Date If Appropriate |
|------------------|--------------|------|------|-------|-----------|----------------------------|
| AA               |              |      |      |       |           |                            |

FOREIGN PATENT DOCUMENTS

|    | Document No. | Date | Country | Class | Sub Class | Translation Yes No |
|----|--------------|------|---------|-------|-----------|--------------------|
| AB |              |      |         |       |           |                    |
| AC |              |      |         |       |           |                    |

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|                  |  |
|------------------|--|
| AD               | Classifier Combination for Improved Lexical Disambiguation, Eric Brill et al., Proceedings of the 36 <sup>th</sup> Annual Meeting for the Association for Computational Linguistics, 1998. (in English)  |
| AE               | Patterñ Classification and Scene Analysis. Richard Duda and Peter Hart, 1973. (in English)   |
| AF               | Toward a Unified Approach to Statistical Language Modeling for Chinese. Jianfeng Gao et al. ACM Transactions on Asian Language Information Processing, 1(1):3-33, 2002. (in English)   |
| AG               | Segmentation problem in Chinese processing, Changning Huang, Applied Linguistics, 1:72-78, 1997. (in Chinese; no English translation)  |
| AH               | A Method of Crossing Ambiguities in Chinese Word Segmentation Based on SVM and k-NN, Rong Li et al. Journal of Chinese Information Processing, 15(6):13-18, 2001. (in Chinese with English abstract)   |
| AI               | The Maximum Probability Segmentation Algorithm of Ambiguous Character Strings, Ting Liu et al., Language Engineering, Tsinghua University Press, pp. 182-187, 1997. (in Chinese with English abstract)   |
| AJ               | A Simple Approach to Building Ensembles of Naive Bayesian Classifiers for Word Sense Disambiguation, Ted Pedersen, in Proceedings of the First Annual Meeting of the North American Chapter of the Association for Computational Linguistics, Seattle, WA, pp. 63-69, 2000. (in Chinese with English abstract) |
| AK               | Using Character Bigram for Ambiguity Resolution in Chinese Words Segmentation, Maosong Sun et al., Computer Research and Development, 34(5): 332-339, 1997. (in Chinese with English abstract)   |
| EXAMINER:        |  |
| DATE CONSIDERED: |  |

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

|   |  |                                 |
|---|--|---------------------------------|
| FORM PTO-1449   | Atty. Docket No.:<br><b>M61.12-0527</b>      | Appl. No.:<br><b>10/662,502</b> |
| LIST OF PATENTS AND PUBLICATIONS FOR<br>APPLICANT'S INFORMATION<br>DISCLOSURE STATEMENT | First Named Inventor:<br><b>Mu Li et al.</b> |                                 |
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U.S. PATENT DOCUMENTS

| Examiner<br>Initial | Document<br>No. | Date | Name | Class | Sub<br>Class | Filing Date<br>If Appropriate |
|---------------------|-----------------|------|------|-------|--------------|-------------------------------|
| BA                  |                 |      |      |       |              |                               |
| BB                  |                 |      |      |       |              |                               |

FOREIGN PATENT DOCUMENTS

|    | Document No. | Date | Country | Class | Sub<br>Class | Translation<br>Yes No |
|----|--------------|------|---------|-------|--------------|-----------------------|
| BC |              |      |         |       |              |                       |

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|           |  |                  |
|-----------|--|------------------|
| BD        | Overlapping Ambiguity in Chinese Text, Maosong Sun et al.; Quantitative and Computational Studies on the Chinese Language, pp. 323-338, 1998. (in Chinese with English abstract)   |                  |
| BE        | Algorithm for Solving 3-Character Crossing Ambiguities in Chinese Word Segmentation. (in Chinese),Maosong Sun et al., Journal of Tsingjua University Science and Technology, 39(5), 1999. (in Chinese only)                |                  |
| BF        | A Graded Approach for the Efficient Resolution of Chinese Word Segmentation Ambiguities, Bing Swen et al., Proceedings of 5 <sup>th</sup> Natural Language Processing Pacific Rim Symposium, pp. 19-24, 1999. (in English) |                  |
| BG        | Constraint Satisfaction and Probabilistic Chinese Segmentation, Junsheng Zhang et al., R.O.C. Computational Linguistics Conference, pp. 147-165. 1991. (in Chinese only)   |                  |
| BH        | The Research of Ambiguity Word - Segmentation Technique for the Chinese Text, Jiaheng Zheng et al, Language Engineering, pp. 201-206, 1997. (in Chinese with English abstract)   |                  |
| BI        |  |                  |
| BJ        |  |                  |
| BK        |  |                  |
| BL        |  |                  |
| EXAMINER: |  | DATE CONSIDERED: |

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